

Title (en)

Pressure compensated electromagnetic proportional directional flow control valve

Title (de)

Druckkompensiertes elektromagnetisches proportional direktionales Strömungssteuerventil

Title (fr)

Souape de contrôle de débit directionnel proportionnel électromagnétique compensé par la pression

Publication

EP 2267570 A3 20141231 (EN)

Application

EP 10166331 A 20100617

Priority

JP 2009147224 A 20090622

Abstract (en)

[origin: EP2267570A2] A pressure compensated electromagnetic proportional directional flow control valve (1) of the present invention integrally includes: an electromagnetic proportional directional flow control valve (2) configured to be driven by a solenoid (10,11); and a pressure compensated valve (3) configured to carry out pressure compensation of a flow rate controlled by the electromagnetic proportional directional flow control valve. A pressure compensation spool (7) moves so as to balance forces of a spring (8,9), a first pressure chamber, and a second pressure chamber. With this, the pressure compensation for maintaining a constant pressure difference between an upstream side and a downstream side of a first variable aperture can be carried out, and a surplus liquid of a liquid flowing from a liquid-pressure supply port to a derivation port can flow out from a branch port to outside.

IPC 8 full level

G05D 7/06 (2006.01); **F15B 13/02** (2006.01); **F15B 13/04** (2006.01); **F16H 61/4061** (2010.01)

CPC (source: EP US)

F15B 13/0417 (2013.01 - EP US); **G05D 7/0635** (2013.01 - EP US); **F15B 13/0442** (2013.01 - EP US); **F15B 2211/30535** (2013.01 - EP US); **F15B 2211/327** (2013.01 - EP US); **F15B 2211/45** (2013.01 - EP US); **F15B 2211/50518** (2013.01 - EP US); **F15B 2211/50572** (2013.01 - EP US); **Y10T 137/86622** (2015.04 - EP US)

Citation (search report)

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)

BA ME RS

DOCDB simple family (publication)

EP 2267570 A2 20101229; **EP 2267570 A3 20141231**; **EP 2267570 B1 20180516**; JP 2011002067 A 20110106; JP 5452993 B2 20140326; US 2010320406 A1 20101223; US 8505581 B2 20130813

DOCDB simple family (application)

EP 10166331 A 20100617; JP 2009147224 A 20090622; US 81798110 A 20100617